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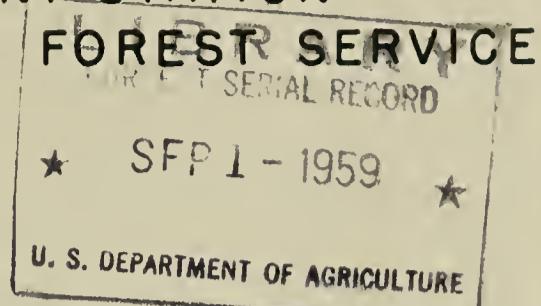
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TECHNICAL NOTES

LAKE STATES FOREST EXPERIMENT STATION
U.S. DEPARTMENT OF AGRICULTURE

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No. 565



1958 Forest Tree Seed Crop Poor in the Lake States

During 1958 forest tree seed crops in general were poorer than any year except 1949 for the 13-year period since 1946, according to observations made at field centers of the Lake States Forest Experiment Station. Despite general low seed production some species in northeastern Wisconsin and Upper Michigan had good or bumper crops (see table on reverse side). Seed crops of most tree species varied by localities from failing to fair. In comparison with 1957, seed production was generally better in the Upper Peninsula, about the same in northeastern Wisconsin, and much poorer in northern Minnesota and Lower Michigan.

In northern Minnesota good crops were reported for some localities for jack pine, black spruce, and northern white-cedar. Seed crop failures occurred in one or more localities for the following species: Red pine, eastern white pine, white spruce, balsam fir, northern white-cedar (varied from failure to good), tamarack, sugar maple, basswood, paper birch, quaking aspen, balsam poplar, black ash, bur oak, and northern red oak.

Bumper crops were produced in some localities of northeastern Wisconsin by northern white-cedar, balsam fir, and eastern hemlock. Good crops were reported for black spruce, sugar maple, basswood, yellow birch, paper birch, quaking aspen, bigtooth aspen, American elm, and white ash. Only Norway spruce had a crop failure.

In central Upper Michigan balsam fir, eastern hemlock, and yellow birch had bumper seed crops; black spruce and American beech produced good crops. Crop failures were reported for eastern white pine, basswood, American elm, and black ash.

In some localities of Lower Michigan northern red oak had a good seed crop and American beech had a fair crop. All other species reported had poor seed crops or failures. This is in contrast to generally good crops last year.

Good seed crops for chokecherry and Russian-olive were reported from north central North Dakota. Except for caragana (poor) and American plum (fair) all other species had seed crop failures.

Since most seed collectors are interested in the pines, 1958 will be considered a poor seed year in the Lake States. Wildlife species that depend largely on mast for winter food had generally poor prospects where oaks occur but somewhat better ones where beech is the main food.

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Table 1.--Forest tree seed crops in the Lake States, 1958

Species	Estimated percentage of a full crop ^{1/} in --						
	Northern		Northeastern		Central	Lower	North central
	Minnesota	Wisconsin	Upper Michigan	Michigan	Peninsula Michigan	North Dakota	
Red pine	7-25		7-25		50	2/ 7	3/-
Eastern white pine	7-25		25-50		7	7	-
Jack pine	25-75		50		50	-	-
Ponderosa pine	-		-		-	-	7
White spruce	7-25		25-50		50	2/ - 7	-
Black spruce	50-75		50-75		75	-	-
Norway spruce	-		7		-	-	-
Balsam fir	7-50		75-95		95	-	-
Eastern hemlock	-		75-95		95	-	-
Northern white-cedar	7-75		95		25	-	-
Tamarack	7		7-25		-	-	-
Sugar maple	7-50		75		25	-	-
Red maple	-		-		25	-	-
Boxelder	-		-		-	-	7
American beech	-		-		75	25-50	-
Basswood	7		75		7	-	-
Yellow birch	50		50-75		95	-	-
Paper birch	7-25		50-75		50	-	-
Quaking aspen	7-25		75		-	-	-
Bigtooth aspen	-		75		-	-	-
Balsam poplar	7		-		-	-	-
American elm	-		75		7	-	7
Siberian elm	-		-		-	-	7
Hackberry	-		-		-	-	7
White ash	-		50-75		-	-	-
Green ash	-		-		-	-	7
Black ash	7		25-50		7	-	-
Bur oak	7		-		-	2/ -	7
Northern pin oak	-		-		-	2/ 7	-
Black oak	-		-		-	25	-
Northern red oak	7		25		50	25-75	-
White oak	-		25		-	7	-
Chokecherry	-		-		-	-	75
American plum	-		-		-	-	50
Russian-olive	-		-		-	-	75
Caragana	-		-		-	-	25

1/ Percentage of a full crop classified as 0-15, failure; 16-35, poor; 36-60, fair; 61-90, good; and 91-100, bumper.

2/ In the north half of the Lower Peninsula.

3/ A dash (-) signifies no report on this species.